



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.: **ISPH-0609**

Inventors: **Nicholas M. Dean**

Serial No.: **10/019,368**

Filing Date: **November 13, 2001**

Examiner: **Not Yet Assigned**

Group Art Unit: **Not Yet Assigned**

Title: **Antisense Oligonucleotide Modulation of Human Protein Kinase C- δ Expression**

I, **Jane Massey Licata**, Registration No. **32,257**, certify that this correspondence is being depositing with the U.S. Postal Service as First Class mail in an envelope addressed to the Assistant Commissioner for Patents and Trademarks, Washington, D.C. 20231.

On this date: **February 19, 2002**

Jane Massey Licata
Jane Massey Licata, Registration No. 32,257

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).

- (XX) In accordance with §1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into

the national stage of the above identified application as set forth in §1.491, or before the mailing date of a first Office Action on the merits of the above-identified application, no additional fee is required.

- () In accordance with §1.97(c), this Information Disclosure Statement is being filed after the period set forth in §1.97(b) above but before the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311, therefore:
 - () Certification in Accordance with §1.97(e) is set forth below; or
 - () The fee of \$180.00 as set forth in §1.17(p) is attached.
- () In accordance with §1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311 but before the payment of the Issue Fee, therefore included are: Certification in Accordance with §1.97(e); Petition Requesting Consideration of the Information Disclosure Statement; and the fee of \$130.00 as set forth in §1.17(i)(1).
- () Copies of each of the references listed on the attached Form PTO-1449 (modified) are enclosed herewith.
- (XX)** In accordance with §1.98(d), copies of some or all of the references listed on the attached Form PTO-1449 (modified) are not enclosed herewith because they were previously

submitted to the U.S. Patent and Trademark Office in prior application Serial No. 09/313,930, filed May 22, 2001, for which a claim for priority under 35 U.S.C. §120 has been made in the instant application.

Please charge any deficiency or credit any overpayment to Deposit Account No. 50-1619. This form is submitted in duplicate.

The relevance of the listed reference AB in a foreign language is as stated in the specification at page 6.

All listed references are in the English language.

Respectfully submitted,

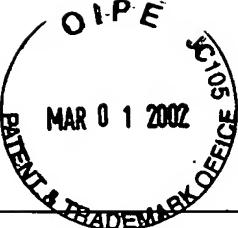


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Form PTO-1449 Modified		Docket No. ISPH-0609	Serial No. 10/019,368
List of Patents and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Nicholas M. Dean	
U.S. Department of Commerce		Filing Date November 13, 2001	Group Not Yet Assigned
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	AA	Borek, C., et al., "Long-chain (sphingoid) bases inhibit multistage carcinogenesis in mouse C3H/10T ^{1/2} , cells treated with radiation and phorbol 12-myristate 13-acetate", <i>Proc. Natl. Acad. Sci. USA</i> 1991 88, 1953-1957	
	AB	Busuttil, et al., "Antisense Suppression of Protein Kinase C- α and - δ in Vascular Smooth Muscle", <i>J. Surg. Res.</i> 1996 63, 137-142	
	AC	Endo, et al., "Cell Membrane Signaling as Target in Cancer Therapy: Inhibitory Effect of N, N-Dimethyl and N,N,N-Trimethyl Sphingosine Derivatives on in Vitro and in Vivo Growth of Human Tumor Cells in Nude Mice", <i>Cancer Research</i> 1991 51 1613-1618	
	AD	Gamard, D.J., et al., "Specific Role for Protein Kinase C β in Cell Differentiation ¹ ", <i>Cell Growth Diff.</i> 1994 5, 405-409	
	AE	Gescher, A., et al., "Protein kinase C-a novel target for rational anti-cancer drug design?", <i>Anti-Cancer Drug Design</i> 1989 4, 93-105	
	AF	Gschwendt, M., et al., "Rottlerin, A Novel Protein Kinase Inhibitor", <i>Biochem. Biophys. Res. Commun.</i> 1994 199, 93-98	
	AG	Hegemann, L., et al., "Biochemical Pharmacology of Protein Knase C and its Relevance for Dermatology", <i>Pharmacology of the Skin</i> , H. Mukhtar, ed. 1992 357-368 CRC Press, Boca Raton, FL	
	AH	Hidaka and Hagiwara, "Pharmacology of the isoquinoline sulfonamide protein kinase C inhibitors", <i>Trends in Pharm. Sci.</i> 1987 8, 162-164	
	AI	Liao, D.F., et al., "Protein Kinase C- ζ Mediates Angiotensin II Activation of ERK1/2 in Vascular Smooth Muscle Cells", <i>J. Biol. Chem.</i> 1997 272, 6146-6150	
EXAMINER		DATE CONSIDERED	



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Form PTO-144A Modified List of Patents and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce		Docket No. ISPH-0609	Serial No. 10/019,368
		Applicant Nicholas M. Dean	
		Filing Date November 13, 2001	Group Not Yet Assigned
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
AJ	Liedtke, C.M., et al., "Antisense oligodeoxynucleotide to PKC- δ blocks α_1 -adrenergic activation of Na-K-2Cl cotransport", <i>Am J. Physiol.</i> 1997 273 C1632-C1640		
AK	McGraw, K., et al., "Antisense oligonucleotide inhibitors of isozymes of protein kinase C: in vitro and in vivo activity, and clinical development as anti-cancer therapeutics", <i>Anti-Cancer Drug Design</i> 1997 12, 315-326		
AL	Pessino et al., "Antisense oligodeoxynucleotide inhibition of δ protein kinase C expression accelerates induced differentiation of murine erythroleukaemia cells", <i>Biochem. J.</i> 1995 312, 549-554		
AM	Suganuma, M., "A New Process of Cancer Prevention Mediated through Inhibition of Tumor Necrosis Factor α Expression ¹ ", <i>Cancer Res.</i> 1996 56, 3711-3715		
AN	Traub, O., et al., "PKC- ϵ Is Required for Mechano-sensitive Activation of ERK1/2 in Endothelial Cells", <i>J. Biol. Chem.</i> 1997 272, 31251-31257		
AO	Crooke S.T., "Antisense Research and Application" 1997 Chapter 1:1-50		
EXAMINER		DATE CONSIDERED	



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Form PTO-1449 Modified	Docket No. ISPH-0609	Serial No. 10/019,368
<p>List of Patents and Publications Cited by Applicant (Use several sheets if necessary)</p> <p>U.S. Department of Commerce</p>	<p>Applicant Nicholas M. Dean</p> <p>Filing Date November 13, 2001</p> <p>Group Not Yet Assigned</p>	

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Country	Translation YES	NO
	AA	WO93/20101	14-10-93	PCT	X	
	AB	WO94/29455	22-12-94	PCT		X

EXAMINER

DATE CONSIDERED